

Date: Sun, 5 Dec 93 04:30:28 PST  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V93 #123  
To: Ham-Homebrew

Ham-Homebrew Digest                      Sun, 5 Dec 93                      Volume 93 : Issue 123

Today's Topics:

304 AM Transmitter-HELP!  
Anybody try building ...  
Project 11: 15M QRP xmtr  
Request for Johnson mods  
sw-radio coils...question.

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Wed, 01 Dec 1993 18:49:41 GMT  
From: yuma!galen@purdue.edu  
Subject: 304 AM Transmitter-HELP!  
To: ham-homebrew@ucsd.edu

I have an AM transmitter using 304's for the modulator and the final.  
I've been told it was built by Phil, KD7EB, who has gone to his reward.  
I'm not sure I have all the parts, but I'd like to get it lit up and  
running. Any help or references anyone can provide would be helpful.

I'm also looking for the addresses of:

'AM Press Exchange' and 'Electric Radio' magazines, as I was pointed  
in theses directions also.

No, the modulation transformer is not for sale,  
Galen, KF0YJ

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Date: Wed, 1 Dec 1993 20:24:55 GMT  
From: rd1.InterLan.COM!rm1.interlan.com!tavernin@uunet.uu.net  
Subject: Anybody try building ...  
To: ham-homebrew@ucsd.edu

Has anybody tried to build the amplifier based on the Motorola MTP3055E that's described in Doug DeMaw's QRP book (pages 171-172)!?

It gives you ~20 watts out with 1 watt in ...

Seems really simple and neat ... and the MTP3055E is less than \$1!

Also, does anyone have any other pointers to articles describing small HF amplifiers, that are inexpensive?

Thanks,

Victor Tavernini  
Racal-Datacom, Inc.

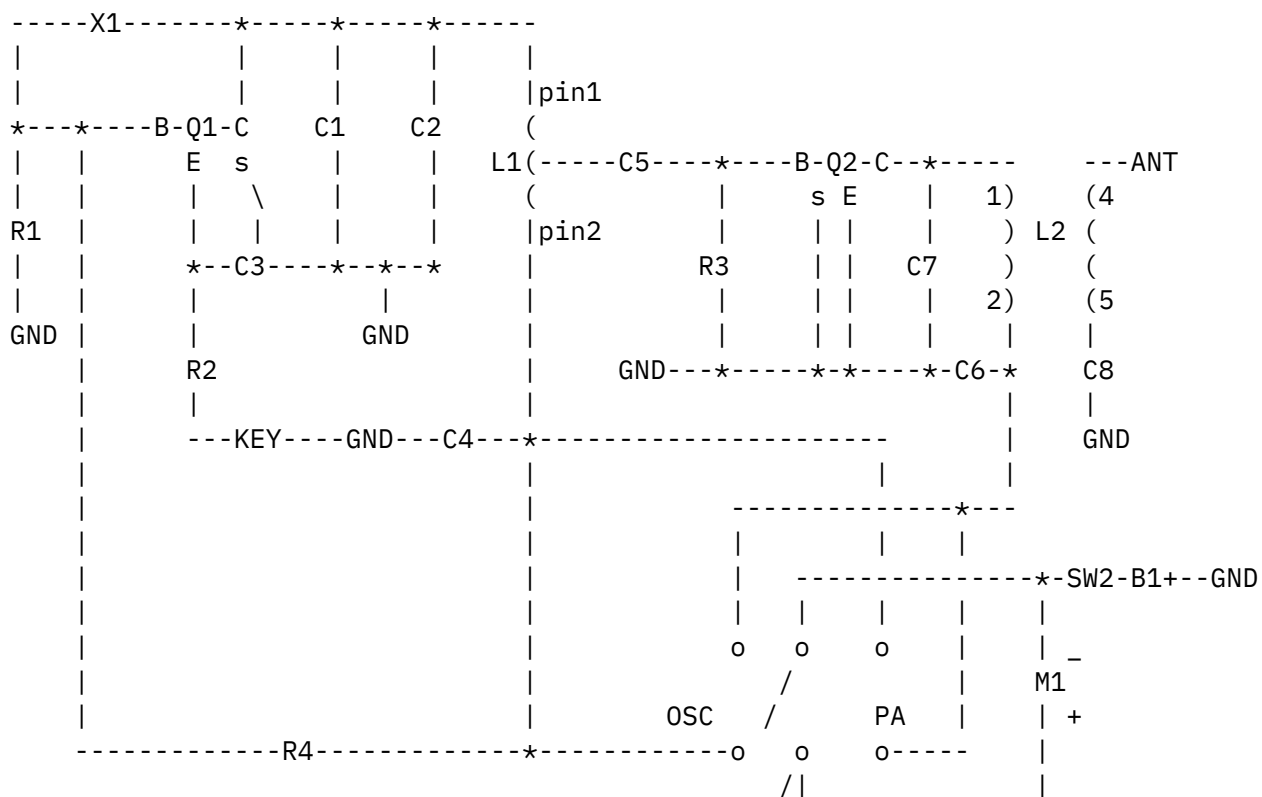
tavernin@sun1.interlan.com

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Date: Sun, 5 Dec 1993 01:28:57 GMT  
From: news.Hawaii.Edu!uhunix.uhcc.Hawaii.Edu!jherman@ames.arpa  
Subject: Project 11: 15M QRP xmtr  
To: ham-homebrew@ucsd.edu

Here's a two transistor 15 meter xmtr gotten from Bert Simon's book 104 HAM RADIO PROJECTS (1968). Bert says: "As any novice knows, 15 meters is where the action is, at least if you're a DX addict. So, imagine the fun in telling your 1000-mile contact that you're running less than 1-watt into a 2-transistor rig. It is important that you use a miniature 5-prong coil form for L1. Follow the directions in the parts list to the letter. L2 is wound over the lower turns of L1, using the same coil form pin connections. As you can see in the schematic, the 40-meter crystal oscillator output is tripled to 15 meters.

"Tuneup is simple. Depress the key (intermittently to avoid damaging Q1-Q2), noting the meter reading. It should be 5-8 ma. (If it isn't, adjust C1 until this range is reached). Switching to the other meter position (PA), adjust C1 for maximum. Using an output bulb (neon or #49) adjust C8 for minimum capacitance. Now tune C7 for a meter dip to about 4.5 ma. While dipping C7, tune C8 for maximum bulb brilliance."

Q1	2N247 PNP transistor
Q2	2N372 PNP
C1,7	15 pf variable capacitor
C2	10 pf variable
C3,4,5,6	.001 mf
C8	50 pf variable
R1	10K resistor
R2	180 ohms
R3	3.6K
R4	51K
B1	12VDC battery
L1	Use 5 prong miniature coil tapped at 3 3/4 turns from center. One end of coil connected to pin 1 of the transformer.
L2	Wound over L1 in same manner. 10 turns #20 insulated wire. One end of L2 link goes to pin 4.
X1	7 MHz 3rd overtone crystal
M1	0-10 DC milliammeter
SW1	DPDT
SW2	SPST



SW1 / |\_\_\_\_\_|

Notes: Q1 and Q2 have a marking (s) on the schematic which appears to be the case of the transistor - on both cases (s) goes to ground. The numbers next to L1 and L2 are the pin numbers of the coil form. The wiring for SW1: If 3 or more wires meet without the junction symbol \* then there is a 'jump' (no connection). The positive terminal of B1 goes to ground.

The usual warning applies here as with the other 9 transmitters: these circuits are old - tighter emission standards are in effect now that weren't when these were first published; make sure you signal is 'clean' by applying proper filtering if necessary.

.... - - - - - . - - - - - .

Jeff NH6IL (ex: WA6QIJ)

Jeffrey Herman, University of Hawaii Department of Mathematics  
jherman@hawaii.edu jeffrey@math.hawaii.edu

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Date: Fri, 3 Dec 1993 14:46:43 GMT  
From: mdisea!mothost!merlin.dev.cdx.mot.com!davidk@uunet.uu.net  
Subject: Request for Johnson mods  
To: ham-homebrew@ucsd.edu

Hammering away at the license upgrade and picked up a Johnson Ranger to get ready for the big day. If you have mods for the Ranger please forward them to me. Also if you have any suggestions for this rig I appreciate knowing about them.

Thanks: Davidk xx1xxx <<<<< 2 1/2 weeks and ticking slowly.

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Date: 1 Dec 1993 21:02:22 GMT  
From: swrinda!sdd.hp.com!col.hp.com!srngenprp!news.dtc.hp.com!hpscit.sc.hp.com!hpuerca.atl.hp.com!der@network.ucsd.edu  
Subject: sw-radio coils...question.  
To: ham-homebrew@ucsd.edu

antonio gatta (st92ba44@dunx1.ocs.drexel.edu) wrote:

: Anyhow, I'm working on  
: a crystal shortwave radio which requires a t-50-2 toroid core onto  
: which the coil is wound. I'm wondering if a straight (bar) ferrite  
: core wouldn't achieve the same end.

In addition to the potential differences in the composition of the ferrite material, I suspect that you could also run into coupling problems between coils (one of the advantages of toroids is that they are largely self-shielding). Of course, I could be toroidally confused.... Have you looked at sources such as The Radio Amateur's Handbook for this info?

So the answer, as is often the case w.r.t. Usenet inquiries is

It Depends.

-- Dave Ritchie N4DJS  
der@hprc.atl.hp.com

Disclaimer: Just another attempt to improve my typing speed.

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Date: Thu, 2 Dec 1993 01:26:09 GMT  
From: olivea!news.bu.edu!att!cbnewsm!jeffj@uunet.uu.net  
To: ham-homebrew@ucsd.edu

References <2649@arrl.org>, <CHBHos.ILA@cbnewsm.cb.att.com>,  
<2diccf\$4tm@news.acns.nwu.edu>reston.a  
Subject : Re: sw-radio coils...question.

In article <2diccf\$4tm@news.acns.nwu.edu> rdewan@casbah.acns.nwu.edu (Rajiv Dewan) writes:

>A good place to start is the ARRL Handbook. Amidon catalog also has  
>lots of useful information.

>

>Here is a comparison of #2 and #6 powdered iron core mixes:

>

	#2	#6	
>permeability	10	8	so a #6 toroid needs more turns
>temp stability (ppm/c)	95	35	if #6 can be used, then preferred for vfos
>preferred freq range	2-10MHz	10-20Mhz	the big reason to pick different ones
>usable range	.2-30MHz	10-50Mhz	

>

>So for 160-40m I would pick #2 mix. For 30m-10m bands, I would pick  
>the yellow #6 mix.

>

>Some one did mention that ferrites have higher losses than powdered  
>iron cores. An important corollary is that coils wound on powdered iron cores  
>have higher Q than ones on ferrite cores (despite needing more turns).  
>Consequently, powdered iron cores are preferred for tuned circuits such  
>as vfo tanks, input/output tanks on rf amplifiers, antenna tuning units  
>etc. On the other hand, the lower Q of the ferrite lends itself to

>broad band applications such as antenna baluns, broadband transformers  
>as in tanks for wide bandwidth amplifiers and rf chokes.

Thanks for the really good answer! This explains alot to me and I'll  
be able to make good use of it! 73!

Jeff

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Jeff Jones AB6MB | Vote out those who voted for the North American  
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End of Ham-Homebrew Digest V93 #123

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